

vegetables. Under artificial changes of environment—the alteration of the proportion of salt in the water in which it lives—a shrimp (*Artemia*) will become transformed by changes which would suffice to distinguish not merely a new species, but a new genus. Sponges and zoophytes which have apparently migrated from the sea to a fresh-water habitat, have changed the course of their development: the organism emerges from the egg in its adult form instead of as a free-swimming larva. Breeds of English sheep transported to the pampas of Argentina become endowed with novel characters: the legs grow long at the expense of the body: the wool turns coarse and hairy. So substantial a distinction as that between short-skulled and long-skulled races is believed by some authorities to have resulted merely from the differing influences of a mountainous and a plains habitat: and at the present day an American environment appears to be curiously modifying the Anglo-Saxon type in the shape of the head and in the modelling of the features. If, as appears, changes of environment are followed by hereditary modifications of form, or stimulate the occurrence of hereditary mutations, we may infer that migration has been a powerful factor in the development of new species of animals and races of mankind.

There appears to be, then, good warranty for

the conclusion that the action of environment may produce changes which become fixed in the breed and are passed on from parents to offspring. The character of these changes may often appear to have no connection with any special features of the environment: it is not clear, for instance, why birds should develop their powers of song